Process for carbonitriding steel.

Publication number: EP0626468

Publication date: 1994-11-30

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Classification:

- international: ***F16C33/62; C21D1/78; C21D9/40; C22C38/00; C22C38/18; C22C38/22; C23C8/32;*** *C21D9/36;* **F16C33/62; C21D1/78; C21D9/40; C22C38/00; C22C38/18; C22C38/22; C23C8/06;** C21D9/36; (IPC1-7): C23C8/32; C21D9/36

- European: C21D1/78; C21D9/40; C23C8/32

Application number: EP19940201258 19940506

Priority number(s): NL19930000901 19930526

Also published as:

US5456766 (A1)
NL9300901 (A)
JP7173602 (A)
EP0626468 (B1)

Cited documents:

GB2258274
GB2209058
GB2235212

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Abstract of **EP0626468**

Process for carbonitriding a steel comprising: 0.75 - 1.1 % by weight of C; up to 1.0 % by weight of Si; less than 0.015 % by weight of P; up to 0.5 % by weight of Mo; up to 1.2 % by weight of Mn; 0.5 - 2 % by weight of Cr, the remainder being Fe, by exposing it at elevated temperatures to an atmosphere comprising at least carbon monoxide, hydrogen, nitrogen and added ammonia. This is carried out by exposing it, between 780 and 900 DEG C, for from 1 to 10 hours, to an atmosphere comprising at least carbon monoxide, hydrogen and ammonia with a carbon activity between 0.90 and 1.10 and a nitrogen potential between 0.10 and 0.60 % N.